

CLAIMS:

1. An operation guiding system comprising:

5 a virtual image memory configured to store, with respect to an operation composed of a sequence of operation steps, virtual images for explaining a content of each of the operation steps;

a display unit configured to be positioned in front of an operator's eye for displaying the virtual images, in contrast to a real operation object in front of the operator;

10 a virtual image replay means configured to replay the virtual images on said display unit in order of the operation steps;

a virtual image adjusting means configured to adjust the virtual images such that a virtual operation object drawn on each of the virtual images and corresponding to the real operation object will have an overlapping relation with the real operation object on said display unit.

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2. The operation guiding system as set forth in claim 1, wherein

each of the virtual images includes a line drawing outlining the real operation object and a visual information mark for explaining the content of each of the operation steps visually.

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3. The operation guiding system as set forth in claim 2, further including

a visual information mark input means which calls up one of the virtual images from said virtual image memory to modify and/or add the visual information mark.

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4. The operation guiding system as set forth in claim 3, wherein

each of the virtual images comprises a layer on which the line drawing is drawn and a layer on which the visual information mark is drawn.

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5. The operation guiding system as set forth in claim 1, wherein
said virtual image replay means memorizes a correspondence between each
of the virtual images and each of the operation steps and has a function that
calls up one of the virtual images corresponding to one of the operation steps
5 specified by the operator.

6. The operation guiding system as set forth in claim 1, wherein
said virtual image replay means memorizes a correspondence between each
of the virtual images and each of the operation steps, said virtual image
10 replay means having a function that replays the virtual images corresponding
to the operation steps within a range specified by the operator and returns to
a first virtual image in the range after a replay of the virtual images.

7. The operation guiding system as set forth in claim 1, further including
15 a voice input means for inputting an operator's voice and
a voice recognition means configured to recognize the voice inputted using
said voice input means;

said virtual image replay means controlling the replay of the virtual
images based on the operator's voice.

8. The operation guiding system as set forth in claim 1, further including
a voice memory configured to store voice data for explaining the content of
each of the operation steps and
a voice output means configured to output the voice data;

25 said virtual image replay means outputting the voice data to said
voice output means in synchronization with a replay of the virtual images.

9. The operation guiding system as set forth in claim 1, further including
an image pickup means configured to take an image of the real operation
30 object and

a feature point extraction means configured to extract a feature point decided in advance with respect to the operation object, from the image taken by said image pickup means;

5 said virtual image adjusting means changing a position and/or a dimension of each of the virtual images displayed on said display unit automatically such that a point of the virtual operation object which corresponds to the feature point extracted by said feature point extraction means will conform to the position of the feature point.

10 10. The operation guiding system as set forth in claim 1, wherein said virtual image adjusting means includes a manual controller by which the operator can manually change a position and/or a dimension of each of the virtual images displayed on said display unit.

15 11. The operation guiding system as set forth in claim 10, further including a head tracking means configured to track a motion of the operator's head;
 said virtual image adjusting means correcting the position of each of the virtual images displayed on said display unit based on an output of said head tracking means.